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| | |
|-----------------------|---------------------------|
| Terms | Documents |
|-----------------------|---------------------------|

| | |
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| L8 and ((435/110)!.CCLS.) | 0 |
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US Patents Full-Text Database**US Pre-Grant Publication Full-Text Database**

JPO Abstracts Database

EPO Abstracts Database

Derwent World Patents Index

Database: IBM Technical Disclosure Bulletins

L16

Search:[Refine Search](#)[Recall Text](#) [Clear](#)**Search History****DATE:** **Wednesday, October 16, 2002** [Printable Copy](#) [Create Case](#)

Set Name Query
side by side

DB=USPT,PGPB; PLUR=YES; OP=AND

| | | <u>Hit Count</u> | <u>Set Name</u> |
|------------|--|------------------|-----------------|
| | | | result set |
| <u>L16</u> | L8 and ((435/110)!.CCLS.) | 0 | <u>L16</u> |
| <u>L15</u> | L8 and ((435/109)!.CCLS.) | 0 | <u>L15</u> |
| <u>L14</u> | L8 and ((435/105)!.CCLS.) | 0 | <u>L14</u> |
| <u>L13</u> | L8 and ((435/100)!.CCLS.) | 0 | <u>L13</u> |
| <u>L12</u> | L8 and ((435/72)!.CCLS.) | 0 | <u>L12</u> |
| <u>L11</u> | L8 and ((536/23.1)!.CCLS.) | 68 | <u>L11</u> |
| <u>L10</u> | L8 and ((536/1.11)!.CCLS.) | 1 | <u>L10</u> |
| <u>L9</u> | L8 and ((424/78.08)!.CCLS.) | 0 | <u>L9</u> |
| <u>L8</u> | L6 and l7 | 393 | <u>L8</u> |
| <u>L7</u> | stable near6 (preparation or formulation) or controlS near3 releas\$ | 74575 | <u>L7</u> |
| <u>L6</u> | l4 and l5 | 678 | <u>L6</u> |
| <u>L5</u> | preserv\$ | 199179 | <u>L5</u> |
| <u>L4</u> | l1 and l2 and l3 | 1261 | <u>L4</u> |
| <u>L3</u> | (aspartic or glutamic or citric or tartaric) adj acid | 92859 | <u>L3</u> |
| <u>L2</u> | saccharide or glucose or fructose or galactose or sucrose or maltose or lactose or trehalose or sorbitol or mannitol | 163727 | <u>L2</u> |
| <u>L1</u> | gene near5 (preparation or formulation) | 3521 | <u>L1</u> |

END OF SEARCH HISTORY

WEST**Search Results - Record(s) 1 through 1 of 1 returned.****L 1. Document ID: US 6326481 B1**

L10: Entry 1 of 1

File: USPT

Dec 4, 2001

US-PAT-NO: 6326481

DOCUMENT-IDENTIFIER: US 6326481 B1

TITLE: Molecules of the AIP-related protein family and uses thereof

| | | | | | | | | | | | | |
|-----------------------|-----------------------|--------------------------|-----------------------|------------------------|--------------------------------|----------------------|---------------------------|---------------------------|-----------------------------|------------------------|----------------------|---------------------------|
| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KIMC | Draw Deck |
| Image | | | | | | | | | | | | |

| Terms | Documents |
|------------------------------|-----------|
| L8 and ((536/1.11)!.CCLS.) | 1 |

Display Format: [Previous Page](#) [Next Page](#)

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(FILE 'HOME' ENTERED AT 17:25:24 ON 16 OCT 2002)

FILE 'MEDLINE, CAPLUS, BIOSIS, SCISEARCH' ENTERED AT 17:26:21 ON 16 OCT 2002

L1 5504 S GENE(5A) (PREPARATION OR FORMULATION)
L2 692621 S SACCHARIDE OR LYSINE OR ASPARAGENE OR HISTIDINE OR TYROSINE
O
L3 1434240 S GLUCOSE OR GALACTOSE OR FRUCTOSE OR SUCROSE OR MALTOSE OR
LAC
L4 292605 S (GLUTAMIC OR ASPARTIC OR CITRIC OR TARTARIC) (W)ACID
L5 427 S L1 AND L2
L6 11 S L5 AND L3 AND L4
L7 14 S L1 AND L3 AND L4
L8 11 DUP REM L6 (0 DUPLICATES REMOVED)
L9 14 DUP REM L7 (0 DUPLICATES REMOVED)

=> d au ti so ab 1-11 18

L8 ANSWER 1 OF 11 CAPLUS COPYRIGHT 2002 ACS
IN Farwick, Mike; Mockel, Bettina; Pfefferle, Walter
TI Use of ptsH gene of Corynebacterium glutamicum for L-lysine biosynthesis
SO U.S. Pat. Appl. Publ., 15 pp., Cont.-in-part of U.S. Ser. No. 755,187.
CODEN: USXXCO
AB The invention relates to the ptsH gene of Corynebacterium glutamicum coding for component H of the phosphotransferase system. Also provided is a process for the fermentative prodn. of L-amino acids with enhancement of the ptsH gene and the use of the above polynucleotides as primer or hybridization probe. In another embodiment, mutants of the ptsH gene are provided.

L8 ANSWER 2 OF 11 CAPLUS COPYRIGHT 2002 ACS
IN Mockel, Bettina; Pfefferle, Walter; Marx, Achim
TI Nucleotide sequences coding for the genes sucC and sucD
SO U.S. Pat. Appl. Publ., 19 pp., Cont. in-part of U.S. Ser. No. 728,498.
CODEN: USXXCO
AB The invention provides polynucleotides coding for the genes sucC and sucD and for the resulting amino acids which encode for the enzyme succinyl CoA synthetase. Also provided is a process for the fermentative prodn. of L-amino acids using coryneform bacteria in which the genes are present in attenuated form, and the use of the polynucleotide sequences as hybridization probe. Thus the genes sucC and sucD from Corynebacterium glutamicum ATCC 13032 were identified and isolated from a C. glutamicum sequence library. Inactivation of either gene increased yields of L-glutamic acid from C. glutamicum. Inactivation of sucC increased the yield of glutamic acid from 20 mg/L to 154 mg/L. Inactivation of sucD had a similar but smaller effect.

L8 ANSWER 3 OF 11 CAPLUS COPYRIGHT 2002 ACS
IN Nampoothiri, K. Madhavan; Mockel, Bettina; Eggeling, Lothar; Sahm, Hermann
TI Protein and gene sequence of the cma gene encoded cyclopropane-mycolic acid synthase of Corynebacterium glutamicum
SO U.S. Pat. Appl. Publ., 15 pp., Cont.-in-part of U.S. Ser. No. 577,857,

abandoned.

CODEN: USXXCO

AB The invention relates to a genetically modified coryneform bacterium, the cma gene of which is amplified, and an isolated polynucleotide which codes

for cyclopropane-mycolic acid synthase from coryneform bacteria, and also a method for the fermentative prepn. of L-amino acids with amplification of the cma gene in the bacteria and the use of the polynucleotide as a primer or hybridization probe.

L8 ANSWER 4 OF 11 CAPLUS COPYRIGHT 2002 ACS

IN Nampoothiri, Madhavan; Moekel, Bettina; Eggeling, Lothar; Sahm, Hermann

TI Genetically modified Coryneform bacteria with overexpressed cma gene and uses thereof in fermentative preparation of L-amino acids

SO PCT Int. Appl., 42 pp.

CODEN: PIXXD2

AB This invention relates to a genetically modified coryneform bacterium, the

cma gene of which is over-expressed, and to an isolated polynucleotide, which codes for cyclopropane-mycolic acid synthase from coryneform bacteria and to a process for the fermentative prodn. of L-amino acids with amplification of the cma gene in the bacteria and to the use of the polynucleotide as a primer or hybridization probe. The invention provides

novel auxiliaries for the improved fermentative prodn. of amino acids, in particular L-lysine and L-glutamate. Sequences of Corynebacterium glutamicum cma gene are also disclosed. Control cells transformed with the empty expression vector produced almost the same amt.

of L-lysine and L-glutamate as cells transformed with the vector contg. the cma gene.

L8 ANSWER 5 OF 11 CAPLUS COPYRIGHT 2002 ACS

IN Sugimoto, Masakazu; Nakai, Yuta; Ito, Hisao; Kurahashi, Osamu

TI Process for producing l-amino acid and novel gene

SO PCT Int. Appl., 39 pp.

CODEN: PIXXD2

AB A gene encoding fructose phosphotransferase (I) of Escherichia coli is transferred into a coryneform bacteria capable of producing L-amino acids such as L-lysine and thus the fructose phosphotransferase activity is potentiated, thereby improving the L-amino acid productivity. Cloning of the I gene of E. coli, prepn. of recombinant Corynebacterium lactofermentum by elec. pulse-mediated transformation, fermn. of L-lysine and L-glutamic acid with the recombinant C. lactofermentum were shown. Also cloning of I gene of C. lactofermentum ATCC13869 was shown.

L8 ANSWER 6 OF 11 CAPLUS COPYRIGHT 2002 ACS

TN Mockel, Bettina; Pfefferle, Walter; Marx, Achim

TI Corynebacterium succinate dehydrogenase genes sdhA, sdhB, and sdhC and amino acid production with recombinant coryneform bacteria

SO Eur. Pat. Appl., 29 pp.

CODEN: EPXXDW

AB Genes sdhA, sdhB, and sdhC for subunits of C. glutamicum succinate dehydrogenase are disclosed. Coryneform bacteria with one of these genes inactivated may be used to produce amino acids. Thus, C. glutamicum with sdhA insertionally inactivated was cultured to produce 155 mg glutamic acid/L while the parent strain only produced 41

mg/L.

L8 ANSWER 7 OF 11 CAPLUS COPYRIGHT 2002 ACS
IN Terada, Masaaki; Ochiya, Takahiro; Sano, Akihiko; Hisada, Akihiko;
Nagahara, Shunji
TI Stable therapeutic **gene preparations**
SO PCT Int. Appl., 64 pp.
CODEN: PIXXD2
AB Disclosed are **formulations for gene** therapy capable of
sustaining high stability during the prodn. process and storage. These
formulations contain **saccharides, non-**
hydrophobic amino acids, and/or org. acids
having .gtoreq.2 carboxyl groups (excluding amino acids), or collagen or
gelatin and at least one amino acid. A sustained-release stick prepn.
was prep'd. from 100 .mu.g/mL plasmid vector pCAHST-1 (encoding FGF-4) soln.
80 mL, 0.86 % atelocollagen soln. 29.1, water 60 g, and 11 mg/mL
glucose soln. 10 mL.

L8 ANSWER 8 OF 11 CAPLUS COPYRIGHT 2002 ACS
IN Tsuchiya, Makoto; Miwa, Kiyoshi
TI Sucrase gene of coryneform bacteria and manufacture of amino acids or
nucleic acids with recombinant coryneform bacteria
SO U.S., 12 pp.
CODEN: USXXAM
AB The present invention provides a DNA fragment derived from Coryneform
bacteria and contg. a gene coding for a protein having sucrase activity
and a recombinant DNA vector contg. said DNA fragment and capable of
expression in Coryneform bacteria. The recombinant DNA is introduced
into Coryneform bacteria to enhance their sucrase activity. By using the
bacteria having enhanced sucrase activity a method is provided for
efficiently producing L-amino acids and nucleic acids in a short period
of time. **Lysine**-producing *Brevibacterium lactofermentum*
transformed with a sucrase expression plasmid produced the same amt. of
lysine (from **sucrose**) in approx. half the time.

L8 ANSWER 9 OF 11 CAPLUS COPYRIGHT 2002 ACS
IN Sugimoto, Masakazu; Otsuna, Seiko; Nagase, Kazuo; Tsuchiya, Makoto;
Hiroshi, Matsui; Yasuhiko, Yoshihara; Nakamatsu, Tsuyoshi
TI Sucrase gene derived from coryneform bacteria and manufacture of amino
acids with recombinant microorganisms
SO Eur. Pat. Appl., 24 pp.
CODEN: EPXXDW
AB The present invention provides a DNA fragment derived from Coryneform
bacteria and contg. a gene coding for a protein having sucrase activity
and a recombinant DNA contg. said DNA fragment. The recombinant DNA is
introduced into Coryneform bacteria to enhance their sucrase activity.
By using the bacteria having enhanced sucrase activity a method is provided
for efficiently producing L-amino acids and nucleic acids in a short
period of time. The sucrase gene of *Brevibacterium lactofermentum* was
cloned. *B. lactofermentum* transformed with this gene and cultured on
sucrose-contg. substrate produced **lysine** and
glutamic acid at a greater rate than did the
non-transformed parents.

L8 ANSWER 10 OF 11 CAPLUS COPYRIGHT 2002 ACS

IN Rudolph, Rainer; Kopetzki, Erhard; Fischer, Stephan; Grossmann, Adelbert; Hoell-Neugebauer, Baerbel
TI Immobilized fusion proteins as biocatalysts: preparation and use
SO Ger. Offen., 13 pp.
CODEN: GWXXBX
AB Biocatalysts are prep'd. by expressing chimeric genes for enzymes fused to binding peptides in host cells, isolating and binding the fusion proteins to a carrier having affinity for the binding peptide, and using the immobilized biocatalyst for prep'n. of a desired product from a substrate. A plasmid encoding .alpha.-glucosidase fused to the hexapeptide Arg6 was prep'd. and the chimeric gene expressed in Escherichia coli. The fusion protein was isolated from the cells and immobilized on Fraktogel EMD SO3-650. The resulting biocatalyst was used to prep. **glucose** from **maltose**.

L8 ANSWER 11 OF 11 CAPLUS COPYRIGHT 2002 ACS
AU Markussen, J.; Diers, I.; Engesgaard, A.; Hansen, M. T.; Hougaard, P.; Langkjaer, L.; Norris, K.; Ribel, U.; Soerensen, A. R.; et al.
TI Soluble, prolonged-acting insulin derivatives. II. Degree of protraction and crystallizability of insulins substituted in positions A17, B8, B13, B27 and B30
SO Protein Eng. (1987), 1(3), 215-23
CODEN: PRENE9; ISSN: 0269-2139
AB Pos. charge was added to insulins by substituting the B13 and A17 **glutamic acid** residues with glutamines and B27 threonine with **lysine** or arginine. These substitutions were introduced by site-specific mutagenesis in a gene coding for a single-chain insulin precursor. By tryptic transpeptidation the single-chain precursors were transformed to the double-chain insulin structure, concomitantly with incorporation of residue B30. Thus insulins combining B13 glutamine, A17 glutamine, and B27 **lysine** or arginine with B30 threonine, threonine amide or **lysine** amide were synthesized. The time course of blood **glucose** lowering effect and the absorption were studied after s.c. injection in rabbits and pigs. The prolonged action of B30-substituted insulins was markedly enhanced by B27 **lysine** or arginine substitutions and by B13 glutamine. The B27 residue is located on the surface of the hexamer, so a basic residue in this position presumably promotes the packing of hexamers at neutral pH. The B13 residues cluster in the center of the hexamer. When the electrostatic repulsive forces from 6 **glutamic acid** residues are abolished by substitution with glutamine, a stabilization of the hexamer can be envisaged. The biol. potency of insulins was measured in the free fat cell assay and in the mouse blood **glucose** assay test. A potency factor could be fitted to each substitution, so that the potency of analogs with .gtoreq.2 substitutions can be estd. by multiplication of the corresponding potency factors. A charge-indifferent substitution, B8 glycine to serine, resulted in insulins that crystallize well but have low potencies. A late elution in gradient reverse-phase HPLC indicates that hydrophobic amino acid residues were exposed as a result of this B8 substitution. This most likely results from distortion by the .alpha.-helix commencing at residues B7, permitted only by B8 glycine with dihedral angles (.PHI., .PSI.) of a D-amino acid.

L8 ANSWER 7 OF 11 CAPLUS COPYRIGHT 2002 ACS
AN 1999:763907 CAPLUS
DN 132:6372
TI Stable therapeutic gene preparations
IN Terada, Masaaki; Ochiya, Takahiro; Sano, Akihiko; Hisada, Akihiko;
Nagahara, Shunji
PA Sumitomo Pharmaceuticals Company, Limited, Japan; Koken Co., Ltd.
SO PCT Int. Appl., 64 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--------|----------------|---|----------|--|----------|
| PI | WO 9961063 | A1 | 19991202 | WO 1999-JP2595 | 19990519 |
| | W: | AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | |
| | RW: | GH, GM, KE, LS, MW, SD, SL, SE, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | |
| | AU 9938488 | A1 | 19991213 | AU 1999-38488 | 19990519 |
| | EP 1078639 | A1 | 20010228 | EP 1999-921163 | 19990519 |
| PRAI | JP 1998-141426 | A | 19980522 | | |
| | WO 1999-JP2595 | W | 19990519 | | |
| RE.CNT | 9 | | | THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD | |
| | | | | ALL CITATIONS AVAILABLE IN THE RE FORMAT | |

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L9 ANSWER 1 OF 14 CAPLUS COPYRIGHT 2002 ACS
IN Farwick, Mike; Mockel, Bettina; Pfefferle, Walter
TI Use of ptsH gene of Corynebacterium glutamicum for L-lysine biosynthesis
SO U.S. Pat. Appl. Publ., 15 pp., Cont.-in-part of U.S. Ser. No. 755,187.
CODEN: USXXCO

L9 ANSWER 2 OF 14 CAPLUS COPYRIGHT 2002 ACS
IN Mockel, Bettina; Pfefferle, Walter; Marx, Achim
TI Nucleotide sequences coding for the genes sucC and sucD
SO U.S. Pat. Appl. Publ., 19 pp., Cont.-in-part of U.S. Ser. No. 728,498.
CODEN: USXXCO

L9 ANSWER 3 OF 14 CAPLUS COPYRIGHT 2002 ACS
IN Nampoothiri, K. Madhavan; Mockel, Bettina; Eggeling, Lothar; Sahm,
Hermann
TI Protein and gene sequence of the cma gene encoded cyclopropane-mycolic
acid synthase of Corynebacterium glutamicum
SO U.S. Pat. Appl. Publ., 15 pp., Cont.-in-part of U.S. Ser. No. 577,857,
abandoned.
CODEN: USXXCO

L9 ANSWER 4 OF 14 CAPLUS COPYRIGHT 2002 ACS
IN Voss, Carsten
TI Preparation of supercoiled plasmid DNA by culture of bacteria in a
defined

- medium
SO Ger. Offen., 22 pp.
CODEN: GWXXBX
- L9 ANSWER 5 OF 14 CAPLUS COPYRIGHT 2002 ACS
IN Nampoothiri, Madhavan; Moekel, Bettina; Eggeling, Lothar; Sahm, Hermann
TI Genetically modified Coryneform bacteria with overexpressed cma
gene and uses thereof in fermentative preparation of
L-amino acids
SO PCT Int. Appl., 42 pp.
CODEN: PIXXD2
- L9 ANSWER 6 OF 14 CAPLUS COPYRIGHT 2002 ACS
IN Sugimoto, Masakazu; Nakai, Yuta; Ito, Hisao; Kurahashi, Osamu
TI Process for producing l-amino acid and novel gene
SO PCT Int. Appl., 39 pp.
CODEN: PIXXD2
- L9 ANSWER 7 OF 14 CAPLUS COPYRIGHT 2002 ACS
IN Mockel, Bettina; Pfefferle, Walter; Marx, Achim
TI Corynebacterium succinate dehydrogenase genes sdhA, sdhB, and sdhC and
amino acid production with recombinant coryneform bacteria
SO Eur. Pat. Appl., 29 pp.
CODEN: EPXXDW
- L9 ANSWER 8 OF 14 CAPLUS COPYRIGHT 2002 ACS
IN Terada, Masaaki; Ochiya, Takahiro; Sano, Akihiko; Hisada, Akihiko;
Nagahara, Shunji
TI Stable therapeutic gene preparations
SO PCT Int. Appl., 64 pp.
CODEN: PIXXD2
- L9 ANSWER 9 OF 14 CAPLUS COPYRIGHT 2002 ACS
IN Ishihara, Hiroshi; Kawaguchi, Takayuki; Ikeda, Masahiro; Nakamoto,
Kazutaka; Sasaki, Atsushi
TI Preparation of sugar amidite derivatives and antisense oligonucleotide
derivatives as antiviral and antitumor agents
SO PCT Int. Appl., 84 pp.
CODEN: PIXXD2
- L9 ANSWER 10 OF 14 CAPLUS COPYRIGHT 2002 ACS
IN Kuma, Hidekazu; Iijima, Osamu; Suzuki, Yousuke
TI Pharmaceutical composition for preserving recombinant virus vectors for
gene therapy
SO PCT Int. Appl., 17 pp.
CODEN: PIXXD2
- L9 ANSWER 11 OF 14 CAPLUS COPYRIGHT 2002 ACS
IN Tsuchiya, Makoto; Miwa, Kiyoshi
TI Sucrase gene of coryneform bacteria and manufacture of amino acids or
nucleic acids with recombinant coryneform bacteria
SO U.S., 12 pp.
CODEN: USXXAM
- L9 ANSWER 12 OF 14 CAPLUS COPYRIGHT 2002 ACS
IN Sugimoto, Masakazu; Otsuna, Seiko; Nagase, Kazuo; Tsuchiya, Makoto;
Hiroshi, Matsui; Yasuhiko, Yoshihara; Nakamatsu, Tsuyoshi
TI Sucrase gene derived from coryneform bacteria and manufacture of amino
acids with recombinant microorganisms
SO Eur. Pat. Appl., 24 pp.

CODEN: EPXXDW

L9 ANSWER 13 OF 14 CAPLUS COPYRIGHT 2002 ACS
IN Rudolph, Rainer; Kopetzki, Erhard; Fischer, Stephan; Grossmann, Adelbert;
Hoell-Neugebauer, Baerbel
TI Immobilized fusion proteins as biocatalysts: preparation and use
SO Ger. Offen., 13 pp.
CODEN: GWXXBX

L9 ANSWER 14 OF 14 CAPLUS COPYRIGHT 2002 ACS
AU Markussen, J.; Diers, I.; Engesgaard, A.; Hansen, M. T.; Hougaard, P.;
Langkjaer, L.; Norris, K.; Ribel, U.; Soerensen, A. R.; et al.
TI Soluble, prolonged-acting insulin derivatives. II. Degree of
protraction
and crystallizability of insulins substituted in positions A17, B8, B13,
B27 and B30
SO Protein Eng. (1987), 1(3), 215-23
CODEN: PRENE9; ISSN: 0269-2139

=> d 9 10 bib ab 19

L9 ANSWER 9 OF 14 CAPLUS COPYRIGHT 2002 ACS
AN 1996:746190 CAPLUS
DN 126:19171
TI Preparation of sugar amidite derivatives and antisense oligonucleotide
derivatives as antiviral and antitumor agents
IN Ishihara, Hiroshi; Kawaguchi, Takayuki; Ikeda, Masahiro; Nakamoto,
Kazutaka; Sasaki, Atsushi
PA Drug Delivery System Institute, Ltd., Japan
SO PCT Int. Appl., 84 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--|--|------|----------|-----------------|----------|
| PT | WO 9630386 | A1 | 19961003 | WO 1996-JP868 | 19960329 |
| | W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML | | | | |
| | CA 2216844 | AA | 19961003 | CA 1996-2216844 | 19960329 |
| | AU 9651227 | A1 | 19961016 | AU 1996-51227 | 19960329 |
| | EP 821001 | A1 | 19980128 | EP 1996-907728 | 19960329 |
| | R: CH, DE, FR, GB, LT, NL, SE | | | | |
| | US 6057431 | A | 20000502 | US 1997-930677 | 19971222 |
| PRAI | JP 1995-100009 | | 19950331 | | |
| | WO 1996-JP868 | | 19960329 | | |
| OS | MARPAT 126:19171 | | | | |
| AB | Compds. represented by general formula | | | | |
| X(CH ₂) _m (T ₅)r(CH ₂) _n CH[(CH ₂) _p T ₃ T ₁ F ₁] (| | | | | |
| CH ₂) _q T ₄ T ₂ F ₂ | [X = NCCH ₂ CH ₂ O(Y)O, Z-OP(O)(OH)O; Y = leaving group; Z = oligonucleotide or its deriv.; T ₁ = (CH ₂) _s , (CH ₂ CH ₂ O) _t CH ₂ CH ₂ ; wherein s = 2-10; t = 1-3; T ₂ = (CH ₂) _u , (CH ₂ CH ₂ O) _v CH ₂ CH ₂ , Q; T ₃ , T ₄ , T _{5b} = CONH, NHCO, | | | | |
| O; | provided that when either one of T ₃ , T ₄ , and T ₅ represents O, the other | | | | |

two groups represent group other than O; F1, F2, F3 = monosaccharide selected from **galactose**, **glucose**, and galactosamine or its deriv., disaccharide consisting of these monosaccharide or their derivs., wherein hydroxy groups not participating in the reaction of mono- and disaccharides or their deriv. are optionally protected; m = 0-10; n, p, q = 0-4; r = 0,1]. These compds. can specifically transfer oligonucleotides into cells that specifically recognize specified sugar structures, inhibit expression of specific genes in cells of organs (in particular liver), and hence can be used as antiviral, antitumor, antirheumatic, antiinflammatory, and antiallergic agents, and immunosuppressants. Thus, tris[2-[2-(2-.beta.-D-galactopyranosyloxyethoxy)ethoxy]ethyl]-modified oligonucleotide phosphorothioate (glycopeptide) (I; R = Q1, wherein R1 = H), which was prep'd. by the phosphoramidite method using a Cyclone Plus Nucleic Acid Synthesizer (Millipore) and phosphoramidite NCCH₂CH₂P[N(CHMe₂)₂]O(CH₂)₃CO-Gln(R)-Gln(R)-NHR (R = Q, wherein R1 = Ac) (prepn. given), at .apprx.1 .mu.M increased the proliferation-inhibiting activity for HepG2 cells .apprx.7 times greater than that of 5'-GGACTCAGACTCGCGTCC-3' phosphorothioate.

NCCH₂CH₂P[N(CHMe₂)₂]O(CH₂)₃CO-

Gln(R)-Gln(R)-NHR (R = Q, wherein R1 = Ac) (prepn. given), at .apprx.1 .mu.M increased the proliferation-inhibiting activity for HepG2 cells .apprx.7 times greater than that of 5'-GGACTCAGACTCGCGTCC-3' phosphorothioate.

L9 ANSWER 10 OF 14 CAPLUS COPYRIGHT 2002 ACS
 AN 1996:685381 CAPLUS
 DN 125:309076
 TI Pharmaceutical composition for preserving recombinant virus vectors for gene therapy
 IN Kuma, Hidekazu; Iijima, Osamu; Suzuki, Yousuke
 PA Hisamitsu Pharmaceutical Co., Inc., Japan
 SO PCT Int. Appl., 17 pp.
 CODEN: PIXXD2
 DT Patent
 LA Japanese
 FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|---|------|----------|-----------------|----------|
| PI | WO 9629096 | A1 | 19960926 | WO 1996-JP652 | 19960315 |
| | W: AU, CA, CN, JP, KR, US | | | | |
| | RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, | | | | |

SE AU 9649544 A1 19961008 AU 1996-49544 19960315
 EP 872249 A1 19981021 EP 1996-906024 19960315
 R: CH, DE, FR, GB, LI, NL

JP 3193057 B2 20010730 JP 1996-528274 19960315
 US 5869306 A 19990209 US 1997-913592 19970912

PRAI JP 1995-59261 A 19950317
 WO 1996-JP652 W 19960315

AB A process for producing **gene transfer preps.** by freeze-drying a mixt. of a recombinant virus vector with at least one additive selected among arginine, **glutamic acid** (or sodium salt thereof), serine, **glucose**, inositol, **lactose**, **mannitol**, **sorbitol**, **trehalose** and **xylose**. The prep'n. is to preserve the potency of the recombinant virus vectors. Prepn. of a compn. contg. recombinant MoMLV vector was shown.

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